

What is claimed is:

1. A method for producing an aperture comprising the steps of:

forming an object for aperture formation having a tip of conical or pyramidal shape, having an opaque film provided on the tip and having a stopper, a height of the stopper is almost the same as that of the tip,

displacing a pressing body having approximately a plane covering the tip and at least a part of the stopper by a force having a component toward the tip to form an aperture on a point of the tip.

2. A method for producing an aperture comprising the steps of:

forming an object for aperture formation having a tip of conical or pyramidal shape, having an opaque film provided on the tip and having a stopper, a height of the stopper is almost the same as that of the tip,

displacing a pressing body having a planar part to come into contact with the tip and at least a part of the stopper in a direction toward the tip to form an aperture on a point of the tip.

3. A method for producing an aperture according to claim 2, wherein the tip of conical or pyramidal shape and the stopper are formed simultaneously.

4. A method for producing an aperture according to claim 2, wherein the object for aperture formation has a plurality of the tips and an aperture is formed on a point of a plurality of the tips simultaneously.

5. A near field optical head comprising:

a pointed tip;

an aperture formed on a point of the tip; and

an opaque film covering the tip, wherein at least a part of the opaque film near the aperture is plastically deformed.

6. A near field optical head according to claim 5, further comprising a stopper having almost the same height as that of the tip.

7. A near field optical head according to claim 5, wherein the tip and the stopper are made of the same material.

8. A near field optical head according to claim 5, wherein a part of the tip projects from a part of the opaque film.

9. A near field optical head according to claim 6, wherein the stopper receives a lift force by a relative motion with a recording medium so as to keep a distance between the aperture and the recording medium constant.

10. A method for fabricating a near field optical head comprising the steps of:

forming a tip of conical or pyramidal shape pointed toward a recording medium;

forming a stopper having almost the same height as that of the tip;

forming an opaque film on the tip; and

forming an aperture on an apex of the tip by allowing a plate-like member covering the tip and at least a part of the stopper to come into contact with the tip to deform the opaque film near the apex of the tip.

11. A method for fabricating a near field optical head according to claim 10, wherein in the step of forming the aperture, a plurality of apertures is formed simultaneously.

12. A method for fabricating a near field optical head according to claim 10, wherein the step of forming the tip and the step of forming the stopper are the same step.

13. A method for fabricating a near field optical head according to claim 10 further comprising the step of removing the stopper after the step of forming the aperture.

14. An information recording/reading apparatus for recording or reading information utilizing a near field light, the apparatus comprising:

a recording medium;

a near field optical head having an aperture on a side of the recording medium; and

a light guiding structure for guiding a luminous flux from a light source to the near field optical head, wherein the near field optical head has a tip of conical or pyramidal shape

transparent to a light having a desired wavelength, an opaque film covering the tip, and an aperture formation mechanism.

15. An information recording/reading apparatus according to claim 14, wherein the aperture formation mechanism is a stopper having almost the same height as that of the tip.

16. An information recording/reading apparatus according to claim 14 comprising a distance-control mechanism for controlling a distance between the near field optical head and the recording medium.

17. An information recording/reading apparatus according to claim 16, wherein at least a part of the distance-control mechanism is air-bearing surfaces formed on the near field optical head.

18. An information recording/reading apparatus according to claim 16, wherein at least a part of the distance-control mechanism is a piezoelectric actuator.

19. An information recording/reading apparatus according to claim 17, wherein at least a part of the distance-control mechanism is a protective part for the aperture.

20. An information recording/reading apparatus according to claim 16, wherein the aperture formation mechanism also serves as the distance-control mechanism.